

Patent claims

1. A refractory repair batch material which includes a refractory, in particular basic resistor component in granule form and a binder system, wherein the binder system contains at least one hard bitumen component in granule form, at least one ignitable metal powder and at least one combustible mineral oil.
2. The repair material, as claimed in claim 1, wherein the resistor component is MgO and/or dolomite and/or Al_2O_3 and/or MgAl_2O_4 and/or SiO_2 and/or ZrO_2 and/or chromium oxide.
3. The repair material as claimed in claim 1 and/or 2, wherein the resistor component is present in a grain size which corresponds to the grain size of the lining material which is to be repaired.
4. The repair material as claimed in one or more of claims 1 to 3, which material has a consistency which can be sprayed or cast or poured or is free-flowing or can be centrifuged.
5. The repair material as claimed in one or more of claims 1 to 4, which reacts in a self-igniting manner at the temperatures of use.
6. The repair material as claimed in one or more of claims 1 to 5, which reacts exothermically at

temperatures of use.

7. The repair material as claimed in one or more of claims 1 to 6, which forms a carbon binding at temperatures of use.

8. The repair material as claimed in one or more of claims 1 to 7, which forms a ceramic binding at temperatures of use.

9. The repair material as claimed in one or more of claims 1 to 8, wherein the metal powder ignites at approximately 500°C.

10. The repair material as claimed in one or more of claims 1 to 9, wherein the mineral oil burns at temperatures of use and in particular is a heavy oil, e.g. a flux oil or used oil.

11. The repair material as claimed in one or more of claims 1 to 10, wherein the hard bitumen melts and cokes, forming the carbon binding, at temperatures of use.

12. The repair material as claimed in one or more of claims 1 to 11, wherein the metal powder oxidizes and brings about sintering reactions between the resistor grains and also between the resistor grains and the lining material.

13. The repair material as claimed in one or more of claims 1 to 12, wherein the metal powder has a fineness of 90% by weight $< 45 \mu\text{m}$.

14. The repair material as claimed in one or more of claims 1 to 13, which contains at least one further carbon carrier, in particular graphite, e.g. flake graphite, or carbon black, preferably in amounts of up to 6% by weight.

15. The repair material as claimed in one or more of claims 1 to 14, which has the following compositions:

45 - 90% by weight,

in particular 67 - 80% by weight of resistor component,

e.g. MgO sinter,

1.5 - 25% by weight,

in particular 4 - 10% by weight of metal powder,

e.g. Si powder,

3.5 - 20% by weight,

in particular 10 - 15% by weight of hard bitumen granules,

5 - 10% by weight,

in particular 6 - 8% by weight of mineral oil,

e.g. flux oil.

16. A process for producing a refractory repair batch material as claimed in one or more of claims 1 to 15, wherein the dry components, such as resistor component, hard bitumen, metal powder and, if used, the further carbon carrier, are mixed in a positive mixer and then the mineral oil is added.

17. The process as claimed in claim 16, wherein the material is packaged in sacks.